



Inertial Labs

Attitude is Everything



PRODUCTS CATALOGUE



39959 Catoctin Ridge Street, Paeonian Springs, VA 20129 U.S.A.

Tel: +1 (703) 880-4222, Fax: +1 (703) 935-8377

www.inertiallabs.com

	Tactical-grade Inertial Measurement Units IMU-P "Tactical"	<u>Applications</u> Electro-Optical Systems (EOC/IR), Motion Control, Gimbal Monitoring, Anti-Roll Systems	Gyroscopes Bias in-run stability	deg/hr	1
			Gyroscopes Angular Random Walk (ARW)	deg/vhr	0.2 (Standard A)
			Gyroscopes Angular Random Walk (ARW)	deg/vhr	0.08 (Stabilization S)
			Accelerometers Bias instability in temperature range	mg	0.5
			Accelerometers Velocity Random Walk (VRW)	m/sec/vhr	0.015
	Industrial-grade Inertial Measurement Units IMU-P "Industrial"	<u>Applications</u> 3D Optical Image Stabilization, Computer Pointing Devices	Gyroscopes Bias in-run stability	deg/hr	3
			Gyroscopes Angular Random Walk (ARW)	deg/vhr	0.3
			Accelerometers Bias instability in temperature range	mg	0.7
			Accelerometers Velocity Random Walk (VRW)	m/sec/vhr	0.017
	GPS Aided Inertial Navigation Systems GPS-INS	<u>Applications</u> UGV, Land Vehicle Navigation, AGV, GPS-Denied Navigation, UAS, Fixed-Wing Aerial	Position accuracy (GPS/SBAS/DGPS/RTK/PPK)	meters	1.2/0.6/0.4/0.01/0.005
			Heading accuracy (real time / post processing)	deg	0.08/0.03
			Pitch and Roll accuracy (real time / post processing)	deg	0.05/0.006
			Gyroscopes in-run stability	deg/hr	1
			Velocity accuracy	meters/sec	0.03
	Optically Enhanced Attitude and Heading Reference Systems OptoAHRS-II	<u>Applications</u> Training for Indirect Fire Control, Stable Heading Compensation	Heading, static accuracy	deg	0.2
			Heading, dynamic accuracy	deg	0.35
			Pitch and Roll, static accuracy	deg	0.05
			Pitch and Roll, dynamic accuracy	deg	0.08
	Attitude and Heading Reference Systems AHRS-10B / AHRS-P Basic/Professional	<u>Applications</u> Platform Stabilization, Pointing and Aiming, North Finding and Keeping	Heading, static accuracy	deg	0.8 / 0.3
			Heading, dynamic accuracy	deg	1 / 0.6
			Pitch and Roll, static accuracy	deg	0.2 / 0.05
			Pitch and Roll, dynamic accuracy	deg	0.5 / 0.08
	Attitude and Heading Reference Systems AHRS-II-P Professional	<u>Applications</u> Navigation Aiding and Filtering Solution, Dynamic Motion Control	Heading, static accuracy	deg	0.3
			Heading, dynamic accuracy	deg	0.6
			Pitch and Roll, static accuracy	deg	0.05
			Pitch and Roll, dynamic accuracy	deg	0.08
	Miniature Attitude and Heading Reference System miniAHRS	<u>Applications</u> Micro-UAV; Fire Control for Low Caliber Artillery	Heading, static accuracy	deg	0.3
			Heading, dynamic accuracy	deg	0.6
			Pitch and Roll, static accuracy	deg	0.1
			Pitch and Roll, dynamic accuracy	deg	0.2
	Railway Motion Control Unit RMCU	<u>Applications</u> Railway Monitoring, Navigation Safety, EN 45545, EN 50155, EN 50011	Heading, static accuracy	deg	0.3
			Heading, dynamic accuracy	deg	0.6
			Pitch and Roll, static accuracy	deg	0.1
			Pitch and Roll, dynamic accuracy	deg	0.2
	Weapon Orientation Modules WOM/OptoWOM-II	<u>Applications</u> Indirect Fire Control, Weapons Aiming, Stabilization for RWS	Heading, static accuracy	mils	3
			Pitch and Roll, static accuracy	mils	1.7
			Gyroscopes in-run Bias stability	deg/hr	1
			Accelerometers in-run Bias stability	mg	0.005
	Motion Reference Units MRU-B/MRU-E/MRU-P Basic/Enhanced/Pro	<u>Applications</u> Marine Dock Loading, Ocean Platform Stabilization, Marine Navigation, Helideck Monitoring, Survey Vessel	Position accuracy (GPS/SBAS/DGPS/RTK) (MRU-P)	meters	1.2/0.6/0.4/0.01
			Heading accuracy (real time) (MRU-E/MRU-P)	deg	0.6/0.05
			Heave accuracy (All)	cm / %	5 / 5
			Surge / Sway accuracy (All)	cm / %	10 / 10
			Pitch and Roll dynamic accuracy (All)	deg	0.03
			Output data format (All)		TSS1, NMEA 0183
	Wave Sensor WS-E and WS-PD Enhanced/Dual Pro	<u>Applications</u> Research Buoy, Wave Direction and Energy Analysis, Surge Tracking	Position accuracy (GPS/SBAS/DGPS/RTK) (WS-PD)	meters	1.2/0.6/0.4/0.01
			Wave Direction accuracy (WS-E/WS-PD)	deg	1/0.5
			Heave accuracy (All)	cm / %	5 / 5
			Surge / Sway accuracy (All)	cm / %	10 / 10
			Pitch and Roll dynamic accuracy (All)	deg	0.03
			Output data format (All)		TSS1, NMEA 0183
	Miniature High Precision Digital Tilt Sensors OS3D-DTS	<u>Applications</u> Digital Tilt Monitoring, Robotics, Construction Site Safety	Size	mm	26 x 19 x 7
			Weight	gram	9
			Pitch & Roll, static accuracy	deg	0.05
			Pitch and Roll, dynamic accuracy	deg	0.08